FERNALD CITIZENS ADVISORY BOARD

2493

FCAB UPDATE

Week of September 6, 1999

(Last briefing was dated August 15, 1999)

MEETING

STEWARDSHIP COMMITTEE — **Large Laboratory Conference Room**
Wednesday, September 8, 1999, 6:30 p.m.

REMEDIATION COMMITTEE — **Large Laboratory Conference Room**
Thursday, September 9, 1999, 6:30 p.m.

FULL BOARD — **Large Laboratory Conference Room**
Saturday, September 11, 1999, 8:30 a.m.

FERNALD MONTHLY PROGRESS BRIEFING — **Services Building Conference Room**
Tuesday, September 14, 1999, 6:30 p.m.

Reminder: if you will not be able to attend any meeting, please call the office and let us know.

ATTACHMENTS

- Riparian Buffer Zones: Summary of Fact Sheets from various web pages
- Letter to Leah Dever from Jim Bierer
- Letter to Susan Brechbill from Jim Bierer
- Intermodal Transportation Update
- Recent Organizational Changes at Fernald
- News Clippings, **please note:** The articles from *The Washington Post* about the Paducah site

NEWS and ANNOUNCEMENTS

One item for the Stewardship Committee to pay special attention to this mailing:

- Riparian Buffer Zones: Summary of Fact Sheets from various states' and universities' web pages

The FCAB's address has changed from the P.O. Box in Ross to Fluor Daniel Fernald
PO Box 538704, MS 76, Cincinnati, OH 45253-8704.

FOR FURTHER INFORMATION

Please contact Doug Sarno or Gwen Doddy, Phoenix Environmental
Phone: 513-648-6478 or 703-971-0058 Fax: 513-648-3629 or 703-971-0006
E-Mail: PhnxEnvir@aol.com or DJSarno@aol.com

FERNALD CITIZENS ADVISORY BOARD

Riparian Buffer Zones: Summary of Fact Sheets from the web pages of:
- Maryland Cooperative Extension, University of Maryland
- College of Agriculture, University of Kentucky
- Forestry Extension, Iowa State University
- Massachusetts Riverways Programs
- South Carolina Scenic River Program

-- 2493

What is a riparian buffer zone?

The U.S. Department of Agriculture defines a riparian buffer zone as a belt of trees and shrubs located adjacent to and up-gradient from water bodies.

The combination of trees, shrubs, and native grasses can improve water quality by removing sediment and chemicals before they reach the waterway. Moreover, a properly maintained buffer area can moderate flooding, help recharge groundwater, prevent soil erosion, and preserve or improve certain types of wildlife habitat. A riparian buffer zone consists of three specific zones, each with a minimum width and desirable types of vegetation.

Zone 1

Zone 1 is located closest to the water and consists of trees. Naturally occurring riparian zone 1s generally begin at the normal water line, or at the top of the bank, and generally extend 15 feet up slope, on both sides of the stream. This zone is an undisturbed forest area where logging is generally not recommended. Livestock should be excluded from this zone.

The trees in this zone help provide stability for the streambed and streambank. Also, the trees close to the water's edge provide shade. Lower stream temperatures increase the stream's ability to absorb and conserve oxygen, which insures stream health and fishability. These trees should have fast growing and deep roots that can decrease erosion along the streambank. Native riparian tree species are preferable because they coevolved with the stream's inhabitants. Bottomland species will tolerate wet conditions, grow quickly and, while the main trunks are flexible and sturdy, the branches are brittle. This fast growth rate and brittleness help these species withstand the periodic trauma of heavy flooding. Instead of washing away and exposing unstabilized banks to erosion, these trees will "shed" branches, which causes little damage to the main trunk stem. Some example of bottomland species are: silver maple, willows, hybrid poplars, green ash, and sycamore.

Zone 2

Zone 2 is a strip of vegetation that generally extends 20 feet up gradient from the outer edge of Zone 1, in naturally occurring riparian zones. This zone consists of large trees with an understory of smaller trees and shrubs.

This zone allows the water to infiltrate or percolate into the soil so that waterborne nutrients/pollutants are absorbed and cleansed through vegetation and other natural ecological systems. This zone can tolerate some disturbance. In the winter, mature trees can be cut and thinned periodically. This will encourage vigorous regrowth in the spring. Other agricultural products can be grown in this area (for example Christmas trees, nut crops, shade-loving wildflowers, and ginseng.)

For this zone, species should be adapted to the specific site and soil conditions. Planting a variety of tree and shrub species increases diversity and improves wildlife habitat. Moreover, planting a mix of species prevents loss of all benefits if one species does not thrive or fails to grow completely. In areas with heavy deer browsing, spicebush and maple-leaf viburnum are good choices.

2493

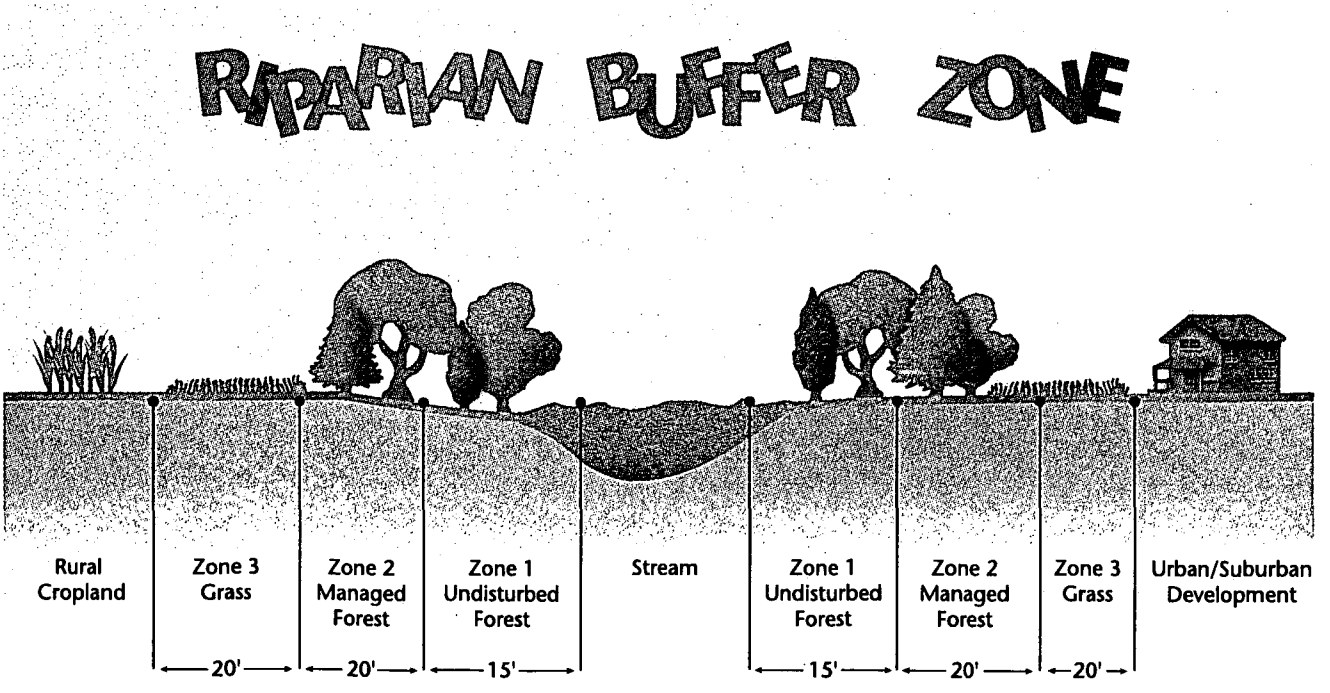
Zone 3

Zone 3 is generally a 20-foot grass buffer strip. It starts at the outermost edge of Zone 2. Naturally occurring riparian zone 3s are the transition zone between the forested areas in Zones 1 and 2 and adjacent land. This zone may be maintained by mowing or rotational livestock grazing.

The purpose of this zone is to reduce non-point source pollution from human activities. Runoff water filtered through a well-maintained buffer carries less nutrients, chemicals, and sediment into the stream. It also provides valuable food and cover for certain wildlife species, such as reptiles, amphibians, and mammals. Warm and/or cool season grasses are recommended in this zone. For example, switchgrass, Indiangrass, big bluestem, and little bluestem. Black-eyed Susan and purple- and gray-headed coneflower may be combined with grass to intercept surface runoff. In areas where surface runoff is a problem, switchgrass is preferred because its dense, stiff stems remain upright throughout the seasons. In addition, it has an extensive and deep root system, much of which is replaced annually, providing large amounts of organic matter to the soil. Organic matter improves soil quality by increasing infiltration rates and microbial activity. One disadvantage of switchgrass is that it takes approximately three (3) years to become fully established.

Minimum Widths for Protection of Water Quality or Aesthetic/Scenic Values

According to South Carolina's best management practices for river-bordering lands, for protection of water quality, a minimum buffer width of 40 to 80 feet (dependent on slope) on both sides of the stream is recommended. To protect aesthetic/scenic values, the buffer should be extended to a minimum of 100 feet on both sides of the stream. To provide adequate habitat and movement corridors for most wildlife species, 300 feet is the generally accepted minimum width. These minimum widths could include a 15-foot Zone 1, a 20-foot Zone 2, and a 20-foot Zone 3; however, these zones could be smaller widths and still met the recommendations of the South Carolina's best management practices for river-bodering lands.



Source: Maryland Cooperative Extension Webpage

Support Staff
Phoenix Environmental
Douglas J. Sarno
Crystal M. Sarno
Gwen Doddy
703-971-0030
703-971-0006 Fax
PhnxEnvir@aol.com

2493

July 22, 1999

Leah Dever
Manager, Oak Ridge Operations Office
U.S. Department of Energy
P.O. Box 2001
Oak Ridge, TN 37831

Dear Leah:

On behalf of the Fernald Citizens Advisory Board (FCAB), I want to thank you for your hard work and dedication to the FCAB. Your support of public involvement, your openness, and your candid approach to working with us, sets a standard for all DOE managers. The Oak Ridge stakeholders are lucky to have you. You will be missed.

Best of luck in Oak Ridge.

Thanks again for your hard work.

Sincerely,

James C. Bierer

James C. Bierer

4

2493

August 31, 1999

Susan Brechbill
Ohio Field Office Manager
US DOE Ohio Field Office
P.O. Box 3020
Miamisburg, OH 45343-3020

Dear Ms. Brechbill:

On behalf of the Fernald Citizens Advisory Board (FCAB), I would like to welcome you to the Ohio Field Office and to invite you to meet with the FCAB on September 11, 1999, at our full board meeting. At the FCAB meeting, you will be given an opportunity to introduce yourself to our CAB and discuss your goals for the Fernald site. The FCAB has enjoyed tremendous support from your two predecessors and looks forward to a positive relationship with you as well.

We look forward to meeting with you.

Sincerely,

James C. Bierer

James C. Bierer
Chair

5

2493

INTERMODAL TRANSPORTATION UPDATE
Prepared for Fernald Citizens Advisory Board

Intermodal transportation of low level radioactive waste — defined as a combination of rail and truck transport to safely move material to its final disposition location — has long been an interest of the Fernald Citizens Advisory Board (FCAB). The Fernald site is currently evaluating the potential for use of intermodal transportation for shipment of its low level waste to the Nevada Test Site (NTS).

Transport of waste from Fernald to NTS has historically been made by over-the-road truck; the routes traditionally employed involved crossing the Hoover Dam and driving through the Las Vegas metropolitan area, including the Las Vegas US-95/I-15 interchange known in Nevada as the Spaghetti Bowl. Residents of the Las Vegas Valley have for many years expressed concern about the safety of waste transport through these areas. DOE and the carrier industry have developed alternative truck routes which avoid the Las Vegas Valley; however, there are issues of increased cost as well as stakeholder concerns along the proposed alternative routes, such as emergency response capabilities, that must be considered.

There are several potential advantages to Intermodal Transportation which remain to be evaluated:

- Possible cost savings as compared to over-the-road truck transport
- Possible decrease in transportation risks
- Strong positive interest expressed by stakeholders in both Ohio and Nevada

If validated, these advantages could result in:

- Reduction in waste shipment costs
- Reduction in waste transportation risk
- Mitigation of stakeholder concerns

The Fernald site formed an Intermodal Task Team in early 1999 to research intermodal transportation issues and outline the steps necessary should intermodal shipment become a viable alternative. In April 1999, a *Draft Request for Proposal (RFP) for Intermodal Transportation Services* to retain a third-party logistics services provider for management of intermodal arrangements for Fernald was prepared and issued for review and comment. Comments on the RFP were received, and along with other pertinent data, will continue to be evaluated over the next several months.

As a pilot project to validate the proposed advantages of intermodal shipment, a small population of mixed wastes (soil excavated from the Sewage Treatment Plant area) will be shipped intermodally from Fernald to Envirocare of Utah, Inc., under a one-time-only contract. Ten intermodal containers (certified as Industrial Packaging - 1 per U.S. Department of Transportation regulations) provided by MHF Logistical Solutions will be transported from Fernald by truck to the vendor's rail transfer point in Pennsylvania, from which the waste will travel by train to Salt Lake City. At Salt Lake City, the waste will be transferred back to trucks for the final leg of the journey to Envirocare. The containers will then be decontaminated and released back to the intermodal services subcontractor. Excavation and loading of this soil is complete, and shipment to Envirocare is scheduled to take place the week of August 30, 1999.

Prepared by tisha patton
August 30, 1999

FLUOR DANIEL FERNALD

Recent Organizational

Date Issued to FCAB: August 30, 1999

Division or Project: Office of the President/Industrial Relations Department
Program Support/Human Resources Department

Description of Change: Change in leadership of Industrial Relations Department

Reason for Change: To add to the flexibility of personnel within the Industrial Relations and Human Resources groups. These groups, along with others in the Program Support and Office of the President Divisions, periodically place managers into new roles in order to broaden their experience and knowledge base.

Personnel Involved: **Tom Biscup** will move from Industrial Relations, which he has successfully directed for the past two and one-half years, to a portfolio assignment in Human Resources. **Michael Townsend**, who most recently served as Manager of Asset Management and also has prior site experience in Production, Maintenance and Public Affairs, will assume the duties of Director of Industrial Relations.

Other Projects Affected: No direct impact to other projects

Effective Date of Change: September 7, 1999

Information requested by Fernald Citizens Advisory Board

Prepared by tisha patton